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Illustrated Wood-Worker.

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All correspondence intended for the columns of the WOOD-WORKER should be sent to the Editor; but letters of a business nature, or which contain money or Post-Office orders, should be addressed to the Publisher. Rejected communications will not be returned unless the persons sending them remit return postage.

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ILLUSTRATIONS.

Plate 9, Design for Wall-Table; Plate 10, Hand-Railing; Plate 11, Mantel and Cabinet; Plate 12, Design for Sideboard; Plate 13, Cottage Queen Anne Style; Plate 14, Practical Carpentry; Plate 15, Isometric Projection; Plate 16, Working-man's Cottage.

Our Illustrations.

THE wall-table shown on the front page is a little gem in its way, and is suggestive of strength and adaptability; it is designed in the "Queen Anne style," and is reproduced from an original drawing by F. Wm. Fieder. If made in oak or other domestic wood, it would have a very unique and pleasing appearance. The construction is such that any intelligent cabinet-maker or joiner will be able to understand at a glance.

Plate 10 shows the method of obtaining the lines for hand-rail for a platform stair, by the "Sectorian System of Hand-Railing." A full explanation of this plate will be found in another column.

Plate 11 is an original design by Mr. Fieder of a mantel and cabinet. The cabinet will concern our readers more than the mantel. It will be noticed that in the back of the lower part of the cabinet is a mirror in an appropriate frame. The angular shelves on each side will strike the workman as being

novel, and at the same time useful. This piece of furniture would look well if made in walnut and finished in oil; but of course the other furniture in the room would have a good deal to do in determining the kind of wood to use for its construction.

Plate 12 shows a handsome dining-room sideboard in the "Eastlake style," which was also designed by Mr. Fieder. This sideboard would look well in any natural wood, and is so constructed that any good workman can make it. Joiners or cabinet-makers who have any spare time on their hands could easily make a sideboard like this; and we are sure, if the work is neatly done, and good material used, that it would find a ready sale, for this style of furniture is now in great demand all over the country.

Plate 13.—This plate shows a cottage, which is a very fine specimen in the "Queen Anne style." The method of construction is obvious. We are indebted to Mr. Kuhns, architect, of Philadelphia, for this drawing. Its estimated cost is \$3000, finished in natural woods. The roofs and sides of building, where shown, are covered with slates. We are sure the readers of the WOOD-WORKER will find much in the design to admire and appreciate. We hope to be favored with more illustrations from the same hand.

Plate 14.—This plate is illustrative of the articles on PRACTICAL CARPENTRY that are published in another part of the WOOD-WORKER.

Plate 15 shows a method of dealing with a cube isometrically. Full explanations are given elsewhere.

Plate 16.—On this plate the elevation and plan of a working-man's cottage is shown. The drawing is furnished us by James N. Stuart, New London, Conn., who also furnishes us with the following description: "The house is to be 22 x 28 feet on the ground, with 14 feet posts. First story, 9 feet in the clear. Two chimneys will be started from the cellar bottom, and brought together in the attic, and topped off on the roof as one, keeping the flues separate all the way up. The first story will be finished as shown on plan, with inclosed shelf in pantry. The attic will contain two bedrooms and as many clothes closets. Total cost of building completed, including foundation, \$700.

Familiar Talk.

WE do like to have a quiet chat with the men who use the plane, the saw, the adze, chisel, square, and glue-pot; it seems like old times, for we wish all the readers of the WOOD-WORKER to know that for thirty years we earned our bread by the use of the tools mentioned above, and this fact brings us in

closer affinity with the men we are now addressing. We think, from our long acquaintance with their habits, necessities, and conditions, that we know the wants, rights, and troubles of the mechanics of this country, and we are sure, from actual experience, that we know of many disadvantages, educational and otherwise, under which they suffer, and which by concerted action might be removed, to the great benefit of the operative artisan; but more of this anon. We think our friends will notice an improvement in the general "get up" of the *WOOD-WORKER* for the present month, and we can assure them that future numbers will improve proportionately, as we are making arrangements for a good supply of new and original designs.

WE desire to call special attention to the designs contributed in this issue of the *WOOD-WORKER* by Mr. Fieder. Mr. Fieder is an artist whose reputation is by no means confined to this country, although he is an American by birth. In drawing he is a master of light and shade, and the freedom of his work arises from the fact that it is almost purely free-hand. There is a grace and elasticity of touch about it that will, we are sure, awaken an interest among young draughtsmen, and start many of them toward better ways of doing things. Mr. Fieder seems to have the knack of investing simple things, things easy of construction, with the true art idea, and we shall be greatly disappointed if the patrons of the *WOOD-WORKER* fail in fully appreciating him. Arrangements can be made with Mr. Fieder for large details of his work, if required, by addressing him at this office.

OWING to the late unfavorable weather the building trades have almost come to a standstill, though the sash and blind factories and furniture establishments are moderately employed. Permits to build and repair were granted last month in this city, which, if proceeded with, will cost in the aggregate \$950,000. The car-building generally is rather flat. In the West and South the car shops have not done much since the holidays. Trade is unsteady in the Eastern and Middle States.

Practical Carpentry.

FIG. 1 plate is called a lancet arch. It is composed of two curves meeting in a point at the top, and joining a straight line at each side in such a manner that the two straight lines are parallel to each other and tangent to each curve, and that every portion of the two curves terminated by equal chords from their point of meeting are equal and similar

arcs. The manner of describing Fig. 1 is obvious.

FIG. 2 is what is commonly denominated an oval. An oval, generally speaking, is an oblong figure formed by a curve line which returns to itself. From this definition of an oval it is evident that there may be an infinite variety of curves so called. To describe the oval Fig. 2, draw the line $P K$, equal in length to the longest diameter of the figure, and bisect $P K$ by a perpendicular $H L$, cutting it in p ; make $p H$ and $p L$ each equal to half the breadth of the figure; then describe the circle, or the arc of a circle, $F G H$, in such a manner that the centre may be in the line $H L$, or in $H L$ produced, and that the circumference may not cut the line $P K$, but may fall as much without as may be thought proper, and draw $A B$ perpendicular to $P K$; the manner of completing the curve is then obvious.

FIG. 3 is another form of the lancet arch, supposed to have the same properties as that already defined; but here the angle $G P I$ at the vertex is given. It must, however, always be greater than the angle formed by the lines extending from each extremity of the chord $R H$ to the summit P . Draw $P c$ perpendicular to $P G$, and let R be the point which divides the arch from the straight line on one side, or what is denominated one of the spring points of the arch, and let $R H$ meet the tangent $R E$ in R , then half of the arch can be described as shown.

FIG. 4 is another oval having the same properties as that which stands above it. To prepare this figure draw the straight line $R H$ equal to the length of the oval. Bisect $R H$ by the perpendicular $P K$, then set off half the width on each side of the centre, and the remote extremities P and K are the extremities of the width. In order that this oval may be a tolerably good representation of the mathematical curve called an ellipse, divide the difference between half the length and half the width into two equal parts, and set three from the centre upon the line $R H$ on each side of it to b and i ; then describe two arcs that shall meet each other in the line of their centres, and that shall touch a straight line $D P$ in P , and $E R$ in R , and that the arc belonging to the lesser circle shall have a given radius. Having finished one end the other will be described in the same manner, and the remaining side by the same radius as the first side opposite.

FIG. 5 is a semi-oval, drawn in the same manner as the figure above it. The curves of the three figures at the bottom of the plate are each composed of two circular arcs.

FIG. 6 is an imitation of a section of a Grecian ovolo.

FIGS. 7 and 8 are in imitation of the section of a scotia. In both these figures the